

REMARKS

This responds to the Office Action dated August 29, 2005, and the references cited therewith.

Claims 1-20 are now pending in this application. No claims have been amended.

Information Disclosure Statement

In the Office Action, Examiner Layno indicated the foreign patent and non-patent literature documents submitted with the Information Disclosure Statement, filed on August 27, 2003 would not be considered because copies of the those documents were not enclosed. Applicant respectfully resubmits copies of the foreign and non-patent literature documents herewith and further requests that a copy of the 1449 Form, initialed as having been considered by the Examiner, be returned to Applicants' Representative with the next Official communication.

§103 Rejection of the Claims

Claims 1, 2, 9, 11, 12, 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Heynen et al. (U.S. Patent No. 6,507,756) in view of Kieval et al. (U.S. Patent No. 5,507,782). The rejections are traversed and reconsideration is respectfully requested. As stated in the office action, the basis for rejecting claims 1, 2, 9, 11, 12, 19 and 20 in view of the Kieval and Heynen references is the asserted equivalence between the ventricular sense offset interval (VSO) of Kieval and the V-V interval recited in applicant's claims. As explained below, applicant does not believe that the asserted equivalence exists.

As best understood, the VSO of Kieval is the difference between a measured intrinsic AV conduction delay and the longest AV pacing delay found to produce a paced beat (i.e., where the pace captures the ventricle). The latter is found by starting with a short AV pacing delay that invariably results in ventricular capture and then progressively lengthening the AV pacing delay until an intrinsic beat with no capture occurs as determined by analyzing the morphology of the R wave in an electrogram. In order for capture to occur, a pace must be delivered before the ventricle is intrinsically depolarized and refractory to pacing stimulation. The longest AV

pacing delay that results in ventricular capture is therefore slightly shorter than the intrinsic AV conduction delay. The difference between the two intervals is defined in Kieval as the VSO.

The V-V interval as defined in the present specification and the claims at issue, however, is completely different. A V-V interval is the intrinsic conduction delay between a stressed ventricular site and an earlier excited ventricular site during an intrinsic heartbeat. That is, during a single intrinsic heartbeat (i.e., no pace is delivered), the difference between the times at which two ventricular sites are activated is measured, and that is the V-V interval. The VSO interval of Kieval would thus not in any way correspond to a V-V interval. To point out just two salient differences, a VSO interval is not measured with respect to two different ventricular sites and is not measured during a single intrinsic heartbeat (since its derivation requires both an intrinsic and a paced beat). Applicant submits that claims 1, 2, 9, 11, 12, 19 and 20 are patentable over the references of record and respectfully requests that the rejections be withdrawn.

Allowable Subject Matter

Claims 3-8, 10 and 13-18 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For the reasons stated above, applicant believes that the objections should be withdrawn and respectfully requests such action.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (847) 432-7302 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

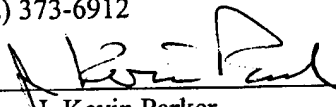
ANDREW P. KRAMER ET AL.

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Date 11-29-05

By


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29 day of November, 2005.

Name

Signature